



Remedial Investigation / Feasibility Study

Progress Report #25
November 2018 – January 2019

February 1, 2019

Prepared for:
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Columbia Falls, Flathead County, Montana

Prepared by:
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- A. Project Schedule

1. Introduction

This Progress Report (Report) prepared by Roux Environmental Engineering and Geology, D.P.C. (Roux) presents a summary of activities completed during the period of November 2018 through January 2019, on behalf of Columbia Falls Aluminum Company, LLC (CFAC), for the Remedial Investigation / Feasibility Study (RI/FS) being performed at the Anaconda Aluminum Co. Columbia Falls Reduction Plant (a/k/a Columbia Falls Aluminum Plant) generally located near Columbia Falls in Flathead County, Montana ("Site"). The RI/FS is being conducted pursuant to the Administrative Settlement Agreement and Order on Consent (AOC) dated November 30, 2015 between CFAC and the United States Environmental Protection Agency (USEPA) (CERCLA Docket No. 08-2016-0002).

This Report provides a description of the actions that have been taken to comply with the AOC during the reporting period and describes work planned for the upcoming reporting period, including an updated project schedule as Appendix A. This report also provides updates regarding the availability of any new, validated sampling data received by CFAC during the reporting period. Lastly, this Report provides an update on any scope revisions and/or project delays encountered and solutions implemented to address any changes.

2. Work Completed

This section provides a summary of activities completed or ongoing from November 2018 through January 2019.

2.1 Final Baseline Risk Assessment Work Plans

As described in prior progress reports, CFAC/Roux submitted the final Baseline Human Health Risk Assessment Work Plan (BHHRA WP) to USEPA on September 28, 2018 and received a letter from USEPA approving the final BHHRA WP on October 23, 2018. CFAC/Roux submitted the final Baseline Ecological Risk Assessment Work Plan (BERA WP) to USEPA on November 15, 2018 and received a letter from USEPA approving the final BERA WP on November 30, 2018. CFAC/Roux and Roux's risk assessment subcontractor, EHS Support, LLC, (EHS) are preparing the draft risk assessment reports to be submitted by March 1, 2019, as described in Section 2.5.

2.2 Submittal of Risk Assessment Interim Deliverables

As described in prior progress reports, CFAC/Roux and EHS submitted three risk assessment interim deliverables to provide additional details regarding the risk assessment assumptions and methodology beyond that included in the BHHRA WP and BERA WP. Roux submitted the Technical Memorandum for Proposed Wildlife Exposure Modeling Approach to Support the BERA WP on August 17, 2018 (Exposure Modeling Interim Deliverable); the Interim Deliverable for the BHHRA WP on August 30, 2018 (BHHRA WP Interim Deliverable); and the Technical Memorandum for Proposed Refined Ecological Screening Values (ESVs) to Support the BERA WP on September 25, 2018 (Refined ESV Interim Deliverable).

USEPA provided comments on the Exposure Modeling Interim Deliverable on October 31, 2018, and comments on the BHHRA WP Interim Deliverable and Refined ESV Interim Deliverable on November 1, 2018.

CFAC/Roux/EHS submitted responses to USEPA comments on the BERA interim deliverables on December 6, 2018, and USEPA provided additional comments on December 20, 2018. In their e-mail correspondence, USEPA indicated they accepted all the responses, with the exception of two, and requested that a conference call be held between the CFAC team and USEPA risk assessors to discuss the outstanding comments. A conference call was not scheduled due to the temporary United States government shutdown. Rather, in an e-mail response provided on January 8, 2019, CFAC/Roux/EHS agreed to USEPA's additional comments on the Exposure Modeling Interim Deliverable, and indicated that they would proceed with finalizing that document. CFAC/Roux/EHS Support also provided an additional response to USEPA's comments on the Refined ESV Interim Deliverable in the e-mail.

USEPA's additional response and/or approval of the three risk assessment interim deliverables is pending.

2.3 Investigation Derived Waste Disposal

During the Phase II Site Characterization field activities, monitoring well development purge water and groundwater investigation-derived waste (IDW) was stored onsite in accordance with the IDW Management Plan dated May 9, 2016 and the AOC. Water IDW was generated and stored onsite in a frac tank through October 2018 until groundwater sampling and surface water sampling activities were completed. Upon completion of sampling activities, Roux personnel collected a water IDW sample from the frac tank for waste

characterization analysis. Sample results from the water IDW waste characterization samples indicated that water was non-hazardous. Roux provided the sample results to the USEPA and to the Section Manager for Washington State Ecology's Waste 2 Resources Program on November 7, 2018. Approximately 1,200 gallons were vacuumed from the frac tank and transported via vacuum truck to Waste Management Graham Road Recycling and Disposal, 1820 S. Graham Road Medical Lake, WA 99022 for disposal. The non-hazardous IDW manifest will be included in the Phase II Site Characterization Data Summary Report.

2.4 Preparation of the Draft Phase II Site Characterization Data Summary Report

CFAC and Roux continued to review and analyze the field and laboratory data generated during the Phase II Site Characterization Program completed from April 2018 through October 2018. The results are being utilized to prepare the draft Phase II Site Characterization Data Summary Report, which will be submitted to USEPA and MDEQ for review on, or before, March 1, 2019 in accordance with the schedule provided in Section 5.0. The Data Summary Report will present all Site Characterization data (including the Phase I Site Characterization dataset, the Supplemental South Pond Assessment dataset, the Phase II Site Characterization dataset, and the Background Investigation dataset).

2.5 Preparation of the Draft Risk Assessment Reports

Roux and EHS continued to review and analyze the field and laboratory data generated during the Phase I and Phase II Site Characterization Program which are being utilized to prepare the draft Baseline Human Health Risk Assessment Report (BHHRA Report) and the draft Baseline Ecological Risk Assessment Report (BERA Report). The risk assessment reports are being prepared in accordance with the BHHRA WP and BERA WP the three draft risk assessment interim deliverables, and comments/responses on the draft interim deliverables. The draft BHHRA and BERA reports will be submitted to USEPA and MDEQ for review on, or before, March 1, 2019 in accordance with the schedule provided in Section 5.0.

2.6 Weekly Reporting, Project Conference Calls, and Project Meetings

A project update call was not held during the reporting period of November 2018 through January 2019. A project update call was scheduled with the project team for January 16, 2019, but the call was postponed due to the temporary United States government shutdown. The project update call will be rescheduled for the upcoming reporting periods.

3. Work Planned for Next Reporting Period

This section summarizes the work planned for the next quarterly reporting period of February to April 2019.

3.1 Approval of Risk Assessment Interim Deliverables

As described in Section 2.2, Roux and EHS submitted three draft risk assessment interim deliverables in August and September 2018. The interim deliverables were reviewed by USEPA during multiple rounds of comments and responses. USEPA's additional response and or/approval of these documents is pending.

3.2 Preparation and Submittal of the Draft Phase II Site Characterization Data Summary Report

As described in Section 2.4, CFAC and Roux will continue to review and analyze the field and laboratory data generated during the Phase II Site Characterization Program in preparation of the Draft Phase II Site Characterization Data Summary Report. The report will be submitted to USEPA/MDEQ for review on, or before, March 1, 2019 in accordance with the schedule provided in Section 5.0.

3.3 Preparation and Submittal of the Draft Risk Assessment Reports

As described in Section 2.5, Roux and EHS will continue to review and analyze the field and laboratory data generated during the Phase I and Phase II Site Characterization Program in preparation of the draft BHHRA Report and the draft BERA Report. The reports will be submitted to USEPA/MDEQ for review on, or before, March 1, 2019 in accordance with the schedule provided in Section 5.0.

4. Database Updates

Validation of laboratory data generated during the Phase II Site Characterization was performed by Laboratory Data Consultants (LDC) as a subcontractor to Roux. All validated laboratory data from the Phase II Site Characterization (106 validated Electronic Data Deliverables) were received from LDC and uploaded to the CFAC RI/FS database during this reporting period.

If additional data is generated during the RI/FS, validated data will continue to be imported into the project database and managed in accordance with the data management procedures outlined in applicable Sampling and Analysis Plans. Future progress reports will discuss updates to the project database as additional data is generated.

5. Scope/Schedule Revisions

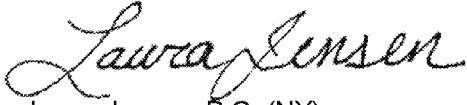
As described in the October 10, 2018 e-mail to USEPA, "Re: CFAC Proposed Advanced RI/FS Schedule," CFAC/Roux requested changes to the RI/FS schedule with the goal of advancing the completion date of the RI/FS, including completing the Draft Candidate Technologies and Remedial Alternatives Memorandum as part of the Feasibility Study Work Plan and reducing the CFAC/Roux report preparation time. USEPA verbally agreed to these modifications during the October 17, 2018 Project Update Meeting. As a follow-up to this discussion, and as described in the October 31, 2018 e-mail to USEPA, "Re: CFAC RI/FS AOC Schedule Modification and AOC Amendment 2," CFAC/Roux requested a modification to the project schedule to modify Table 3 in the CFAC RI/FS Work Plan titled "RI/FS Schedule of Deliverables and Activities." The request was then forwarded to USEPA and reviewed between October and December 2018. USEPA provided approval of the schedule modification in a letter signed December 19, 2018.

An updated project schedule is attached to this progress report. The dates reflected in this schedule are based on dates within the AOC, AOC amendments, and the current projected timeline by Roux.

On behalf of CFAC, Roux will continue to pursue the overall objectives described in the AOC and the RI/FS Work Plan. Roux will continue to inform the USEPA of completed and upcoming activities pursuant to the requirements of the AOC in future progress reports.

Respectfully submitted,

ROUX ENVIRONMENTAL ENGINEERING AND GEOLOGY, D.P.C.



Laura Jensen, P.G. (NY)
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Principal Hydrogeologist /
RI/FS Project Manager

APPENDIX A

Project Schedule

CFAC RI/FS Schedule Updated January 28, 2019																											
ID	Deliverable/Task Name	Duration	Start	Finish	Company	Predecessors	January 2016	February 2016	March 2016	April 2016	May 2016	June 2016	July 2016	August 2016	September 2016	October 2016	November 2016	December 2016	January 2017	February 2017	March 2017	April 2017	May 2017	June 2017	July 2017	August 2017	September 2017
1	AOE is executed by all parties	1 day	Mon 11/30/15	Mon 11/30/15	EPA/CFAC																						
2	Historical Records Review	160 days	Mon 2/8/16	Fri 9/16/16	Roux																						
3	X Draft Health and Safety Plan (HASP)	30 edays	Mon 11/30/15	Wed 12/30/15	Roux	1																					
4	X Final Health and Safety Plan (HASP)	25 days	Thu 12/31/15	Wed 2/3/16	Roux	3																					
5	Site is clear of Snow / Field Work Begins	1 day	Mon 4/4/16	Mon 4/4/16																							
6	Pre-Intrusive Task 1 - Site Reconnaissance	10 days	Mon 4/4/16	Fri 4/15/16	Roux	555																					
7	Pre-Intrusive Task 2 - Geophysical Survey	5 days	Mon 4/18/16	Fri 4/22/16	Roux	6																					
8	Pre-Intrusive Task 3 - Soil Gas Survey	7 days	Mon 4/18/16	Tue 4/26/16	Roux	755																					
9	SAP Addendum	75 days	Mon 4/18/16	Fri 7/29/16	Roux																						
10	X Draft SAP Addendum	40 days	Mon 4/18/16	Fri 6/10/16	Roux	6																					
11	EPA Review of Draft SAP Addendum	15 days	Mon 6/13/16	Fri 7/1/16	EPA	10																					
12	X Final SAP Addendum	20 days	Mon 7/4/16	Fri 7/29/16	Roux	11																					
13	Source Area Investigation - Phase I Site Characterization Field Activities	120 days	Mon 5/9/16	Fri 10/21/16	Roux/Hydrometrics																						
14	GPR Utility Mark-Outs	5 days	Mon 5/9/16	Fri 5/13/16	Roux																						
15	Clearing / Grading for Drill Rig Access	4 days	Wed 5/11/16	Mon 5/16/16	Roux																						
16	Sonic Rig 1	75 days	Mon 5/16/16	Fri 8/26/16	Roux	8FS+10 days																					
17	Sonic Rig 2	50 days	Mon 5/16/16	Fri 7/22/16	Roux	8FS+10 days																					
18	Geoprobe	20 days	Mon 5/16/16	Fri 6/10/16	Hydrometrics	8FS+10 days																					
19	Landfill GPR Survey Field Work	3 days	Mon 7/25/16	Wed 7/27/16	Roux																						
20	Test Pitting	5 days	Mon 8/15/16	Fri 8/19/16	Roux																						
21	Additional Monitoring Well redevelopment activities	10 days	Mon 10/10/16	Fri 10/21/16	Hydrometrics																						
22	Background Area Investigation	5 days	Mon 6/13/16	Fri 6/17/16	Hydrometrics	18																					
23	Operational Grid Area Investigation	30 days	Mon 6/20/16	Fri 7/29/16	Hydrometrics	22																					
24	Site-Wide Surface Water Sampling - Event 1	5 days	Mon 9/5/16	Fri 9/9/16	Roux/Hydrometrics	16FS+5 days																					
25	Site-Wide Groundwater Sampling - Event 1	15 days	Mon 9/12/16	Fri 9/30/16	Roux/Hydrometrics	24																					
26	Site-Wide Surface Water Sampling - Event 2	5 days	Mon 12/5/16	Fri 12/9/16	Roux/Hydrometrics	24SS+90 edays																					
27	Site-Wide Groundwater Sampling - Event 2	15 days	Mon 12/12/16	Fri 12/30/16	Roux/Hydrometrics	26																					
28	Site-Wide Surface Water Sampling - Event 3	5 days	Mon 3/13/17	Fri 3/17/17	Roux/Hydrometrics	27SS+90 edays																					
29	Site-Wide Groundwater Sampling - Event 3	15 days	Mon 3/20/17	Fri 4/7/17	Roux/Hydrometrics	28																					
30	Site-Wide Surface Water Sampling - Event 4	5 days	Mon 6/12/17	Fri 6/16/17	Roux/Hydrometrics	28SS+90 edays																					
31	Site-Wide Groundwater Sampling - Event 4	15 days	Mon 6/19/17	Fri 7/7/17	Roux/Hydrometrics	30																					
32	Investigation Derived Waste Management/Disposal	390 days	Mon 4/4/16	Fri 9/29/17	Roux	555																					
33	Phase I Site Characterization Data Summary Report	251 days	Mon 10/3/16	Mon 9/18/17	Roux																						
34	Data Validation Completion	35 days	Mon 10/3/16	Fri 11/18/16	Data Validator	25																					
35	X Draft Phase I Site Characterization Summary Report to EPA/MDEQ	71 days	Mon 11/21/16	Mon 2/27/17	Roux	34																					
36	EPA review of Draft Phase I Data Summary Report	30 days	Mon 3/6/17	Fri 4/14/17	EPA	35																					
37	X Response to EPA/MDEQ Comments on Draft Phase I Data Summary Report	100 days	Mon 4/17/17	Fri 9/1/17	Roux/EPA	36																					
38	X Final Submission of Phase I Summary Report to EPA/MDEQ	10 days	Tue 9/5/17	Mon 9/18/17	Roux	37																					
39	Screening Level Ecological Risk Assessment (SLERA)	361 days	Mon 5/2/16	Mon 9/18/17	Roux																						
40	Completion of SLERA Field Work	5 days	Mon 5/2/16	Fri 5/6/16	Roux																						
41	X Draft SLERA Summary Report	71 days	Mon 11/21/16	Mon 2/27/17	Roux	34																					
42	EPA review of Draft SLERA Report	30 days	Mon 3/6/17	Fri 4/14/17	EPA	41																					
43	X Response to EPA/MDEQ Comments on Draft SLERA Summary Report	100 days	Mon 4/17/17	Fri 9/1/17	Roux/EPA	42																					
44	X Final Submission of SLERA Report to EPA/MDEQ	10 days	Tue 9/5/17	Mon 9/18/17	Roux	43																					
45	2017 Additional Field Activities	85 days	Mon 4/17/17	Fri 8/11/17	Roux																						
46	Preparation of 2017 field activities plan/SAP Mods	30 days	Mon 4/17/17	Fri 5/26/17	Roux	36																					
47	Pneumatic Slug Testing	15 days	Mon 7/10/17	Fri 7/28/17	Roux	31																					
48	Asbestos Landfill Soil Sampling	10 days	Mon 7/31/17	Fri 8/11/17	Roux/Hydrometrics	47																					
49	Groundwater and Surface Water Sampling Data Summary Report	101 days	Mon 7/10/17	Mon 11/27/17	Roux																						
50	Validation of Round 4 sampling data	25 days	Mon 7/10/17	Fri 8/11/17	Data Validator	31																					
51	X GW/SW Summary Report to EPA/MDEQ	76 days	Mon 8/14/17	Mon 11/27/17	Roux	50																					
52	Baseline Human Health Risk Assessment Work Plan	270 days	Mon 9/18/17	Fri 9/28/18	Roux																						
53	X Draft BHHRA Work Plan to EPA/MDEQ	60 edays	Mon 9/18/17	Fri 11/17/17	Roux/EHS Support	38																					
54	EPA review of Draft BHHRA Work plan	42 days	Mon 11/20/17	Tue 1/16/18	EPA	53																					
55	X Response to EPA/MDEQ Comments on BHHRA Work Plan	93 days	Wed 1/17/18	Fri 5/25/18	Roux	54																					
56	EPA review of Response to Comments on BHHRA Work Plan	76 days	Mon 5/28/18	Fri 9/7/18	EPA	55																					
57	X Final Submission of BHHRA WP to EPA/MDEQ	15 days	Mon 9/10/18	Fri 9/28/18	Roux	56																					
58	Baseline Ecological Risk Assessment Work Plan	275 days	Mon 9/18/17	Fri 10/5/18	Roux																						
59	X Draft BERA Work Plan to EPA/MDEQ	60 edays	Mon 9/18/17	Fri 11/17/17	Roux/EHS Support	44																					
60	EPA review of Draft BERA Work Plan	42 days	Mon 11/20/17	Tue 1/16/18	EPA	59																					
61	X Response to EPA/MDEQ Comments on BERA Work Plan	93 days	Wed 1/17/18	Fri 5/25/18	Roux	60																					
62	EPA review of Response to Comments on BERA Work Plan	76 days	Mon 5/28/18	Fri 9/7/18	EPA	61																					
63	X Final Submission BERA Work Plan to EPA/MDEQ	20 days	Mon 9/10/18	Fri 10/5/18	Roux	62																					
64	Phase II Remedial Investigation Sampling and Analysis Plan	117 days	Tue 11/28/17	Wed 5/9/18	Roux																						
65	X Draft Phase II Sampling and Analysis Plan to EPA/MDEQ	67 days	Tue 11/28/17	Wed 2/28/18	Roux	51																					
66	EPA review of draft Phase II Sampling and Analysis Plan	25 days	Thu 3/1/18	Wed 4/4/18	EPA	65																					
67	X Response to EPA/MDEQ Comments on Phase II Sampling and Analysis Plan	15 days	Thu 4/5/18	Wed 4/25/18	Roux	66																					
68	X Final Phase II Sampling and Analysis Plan	10 days	Thu 4/26/18	Wed 5/9/18	Roux	67																					
69	South Percolation Pond Expedited Risk Assessment	35 days	Mon 10/30/17	Fri 12/15/17																							
70	South Percolation Pond Risk Expedited Risk Assessment Field Activities	10 days	Mon 10/30/17	Fri 11/10/17	Roux																						
71	Validation of South Pond Data	25 days	Mon 11/13/17	Fri 12/15/17	Data Validator	70																					
72	Phase II Remedial Investigation	129 days	Wed 4/25/18	Fri 10/19/18																							
73	Site Reconnaissance	3 days	Wed 4/25/18	Fri 4/27/18	Roux																						
74	Soil Borings with Geoprobe	15 days	Mon 4/30/18	Fri 5/18/18	Roux	73																					
75	Soil Borings and Monitoring Well Installation with Sonic Rig	19 days	Mon 4/30/18	Thu 5/24/18	Roux	73																					
76	Soil borings with Hand Tools</																										

ID	Deliverable/Task Name	Duration	Start	Finish	Company	Predecessors	September 2017	October 2017	November 2017	December 2017	January 2018	February 2018	March 2018	April 2018	May 2018	June 2018	July 2018	August 2018	September 2018	October 2018	November 2018	December 2018	January 2019	February 2019	March 2019	April 2019	May
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53	X Draft BHHRA Work Plan to EPA/MDEQ	60 edays	Mon 9/18/17	Fri 11/17/17	Roux/EHS Support	38																					
54	EPA review of Draft BHHRA Work plan	42 days	Mon 11/20/17	Tue 1/16/18	EPA	53																					
55	X Response to EPA/MDEQ Comments on BHHRA Work Plan	93 days	Wed 1/17/18	Fri 5/25/18	Roux	54																					
56	EPA review of Response to Comments on BHHRA Work Plan	76 days	Mon 5/28/18	Fri 9/7/18	EPA	55																					
57	X Final Submission of BHHRA WP to EPA/MDEQ	15 days	Mon 9/10/18	Fri 9/28/18	Roux	56																					
58	Baseline Ecological Risk Assessment Work Plan	275 days	Mon 9/18/17	Fri 10/5/18	Roux																						
59	X Draft BERA Work Plan to EPA/MDEQ	60 edays	Mon 9/18/17	Fri 11/17/17	Roux/EHS Support	44																					
60	EPA review of Draft BERA Work Plan	42 days	Mon 11/20/17	Tue 1/16/18	EPA	59																					
61	X Response to EPA/MDEQ Comments on BERA Work Plan	93 days	Wed 1/17/18	Fri 5/25/18	Roux	60																					
62	EPA review of Response to Comments on BERA Work Plan	76 days	Mon 5/28/18	Fri 9/7/18	EPA	61																					
63	X Final Submission BERA Work Plan to EPA/MDEQ	20 days	Mon 9/10/18	Fri 10/5/18	Roux	62																					
64	Phase II Remedial Investigation Sampling and Analysis Plan	117 days	Tue 11/28/17	Wed 5/9/18	Roux																						
65	X Draft Phase II Sampling and Analysis Plan to EPA/MDEQ	67 days	Tue 11/28/17	Wed 2/28/18	Roux	51																					
66	EPA review of draft Phase II Sampling and Analysis Plan	25 days	Thu 3/1/18	Wed 4/4/18	EPA	65																					
67	X Response to EPA/MDEQ Comments on Phase II Sampling and Analysis Plan	15 days	Thu 4/5/18	Wed 4/25/18	Roux	66																					
68	X Final Phase II Sampling and Analysis Plan	10 days	Thu 4/26/18	Wed 5/9/18	Roux	67																					
69	South Percolation Pond Expedited Risk Assessment	35 days	Mon 10/30/17	Fri 12/15/17																							
70	South Percolation Pond Risk Expedited Risk Assessment Field Activities	10 days	Mon 10/30/17	Fri 11/10/17	Roux																						
71	Validation of South Pond Data	25 days	Mon 11/13/17	Fri 12/15/17	Data Validator	70																					
72	Phase II Remedial Investigation	129 days	Wed 4/25/18	Fri 10/19/18																							
73	Site Reconnaissance	3 days	Wed 4/25/18	Fri 4/27/18	Roux																						
74	Soil Borings with Geoprobe	15 days	Mon 4/30/18	Fri 5/18/18	Roux	73																					
75	Soil Borings and Monitoring Well Installation with Sonic Rig	19 days	Mon 4/30/18	Thu 5/24/18	Roux	73																					
76	Soil borings with Hand Tools	8 days	Sat 6/23/18	Tue 7/3/18	Roux																						
77	Surface Water Sampling - Round 1	15 days	Mon 6/4/18	Fri 6/22/18	Roux/Hydrometrics																						
78	Groundwater Sampling - Round 1	14 days	Mon 6/4/18	Thu 6/21/18	Roux/Hydrometrics	77SS																					
79	Surface Water Sampling - Round 2	15 days	Mon 10/1/18	Fri 10/19/18																							

CFAC RI/FS Schedule Updated January 28, 2019																										
ID	Deliverable/Task Name	Duration	Start	Finish	Company	Predecessors	May 2019	June 2019	July 2019	August 2019	September 2019	October 2019	November 2019	December 2019	January 2020	February 2020	March 2020	April 2020	May 2020	June 2020	July 2020	August 2020	September 2020	October 2020	November 2020	December 2020
1	AOC is executed by all parties	1 day	Mon 11/30/15	Mon 11/30/15	EPA/CFAC																					
2	Historical Records Review	160 days	Mon 2/8/16	Fri 9/16/16	Roux																					
3	X Draft Health and Safety Plan (HASP)	30 edays	Mon 11/30/15	Wed 12/30/15	Roux	1																				
4	X Final Health and Safety Plan (HASP)	25 days	Thu 12/31/15	Wed 2/3/16	Roux	3																				
5	Site is clear of Snow / Field Work Begins	1 day	Mon 4/4/16	Mon 4/4/16																						
6	Pre-Intrusive Task 1 - Site Reconnaissance	10 days	Mon 4/4/16	Fri 4/15/16	Roux	555																				
7	Pre-Intrusive Task 2 - Geophysical Survey	5 days	Mon 4/18/16	Fri 4/22/16	Roux	6																				
8	Pre-Intrusive Task 3 - Soil Gas Survey	7 days	Mon 4/18/16	Tue 4/26/16	Roux	755																				
9	SAP Addendum	75 days	Mon 4/18/16	Fri 7/29/16	Roux																					
10	X Draft SAP Addendum	40 days	Mon 4/18/16	Fri 6/10/16	Roux	6																				
11	EPA Review of Draft SAP Addendum	15 days	Mon 6/13/16	Fri 7/1/16	EPA	10																				
12	X Final SAP Addendum	20 days	Mon 7/4/16	Fri 7/29/16	Roux	11																				
13	Source Area Investigation - Phase I Site Characterization Field Activities	120 days	Mon 5/9/16	Fri 10/21/16	Roux/Hydrometrics																					
14	GPR Utility Mark-Outs	5 days	Mon 5/9/16	Fri 5/13/16	Roux																					
15	Clearing / Grading for Drill Rig Access	4 days	Wed 5/11/16	Mon 5/16/16	Roux																					
16	Sonic Rig 1	75 days	Mon 5/16/16	Fri 8/26/16	Roux	8FS+10 days																				
17	Sonic Rig 2	50 days	Mon 5/16/16	Fri 7/22/16	Roux	8FS+10 days																				
18	Geoprobe	20 days	Mon 5/16/16	Fri 6/10/16	Hydrometrics	8FS+10 days																				
19	Landfill GPR Survey Field Work	3 days	Mon 7/25/16	Wed 7/27/16	Roux																					
20	Test Pitting	5 days	Mon 8/15/16	Fri 8/19/16	Roux																					
21	Additional Monitoring Well redevelopment activities	10 days	Mon 10/10/16	Fri 10/21/16	Hydrometrics																					
22	Background Area Investigation	5 days	Mon 6/13/16	Fri 6/17/16	Hydrometrics	18																				
23	Operational Grid Area Investigation	30 days	Mon 6/20/16	Fri 7/29/16	Hydrometrics	22																				
24	Site-Wide Surface Water Sampling - Event 1	5 days	Mon 9/5/16	Fri 9/9/16	Roux/Hydrometrics	16FS+5 days																				
25	Site-Wide Groundwater Sampling - Event 1	15 days	Mon 9/12/16	Fri 9/30/16	Roux/Hydrometrics	24																				
26	Site-Wide Surface Water Sampling - Event 2	5 days	Mon 12/5/16	Fri 12/9/16	Roux/Hydrometrics	24SS+90 edays																				
27	Site-Wide Groundwater Sampling - Event 2	15 days	Mon 12/12/16	Fri 12/30/16	Roux/Hydrometrics	26																				
28	Site-Wide Surface Water Sampling - Event 3	5 days	Mon 3/13/17	Fri 3/17/17	Roux/Hydrometrics	27SS+90 edays																				
29	Site-Wide Groundwater Sampling - Event 3	15 days	Mon 3/20/17	Fri 4/7/17	Roux/Hydrometrics	28																				
30	Site-Wide Surface Water Sampling - Event 4	5 days	Mon 6/12/17	Fri 6/16/17	Roux/Hydrometrics	28SS+90 edays																				
31	Site-Wide Groundwater Sampling - Event 4	15 days	Mon 6/19/17	Fri 7/7/17	Roux/Hydrometrics	30																				
32	Investigation Derived Waste Management/Disposal	390 days	Mon 4/4/16	Fri 9/29/17	Roux	555																				
33	Phase 1 Site Characterization Data Summary Report	251 days	Mon 10/3/16	Mon 9/18/17	Roux																					
34	Data Validation Completion	35 days	Mon 10/3/16	Fri 11/18/16	Data Validator	25																				
35	X Draft Phase I Site Characterization Summary Report to EPA/MDEQ	71 days	Mon 11/21/16	Mon 2/27/17	Roux	34																				
36	EPA review of Draft Phase I Data Summary Report	30 days	Mon 3/6/17	Fri 4/14/17	EPA	35																				
37	X Response to EPA/MDEQ Comments on Draft Phase I Data Summary Report	100 days	Mon 4/17/17	Fri 9/1/17	Roux/EPA	36																				
38	X Final Submission of Phase I Summary Report to EPA/MDEQ	10 days	Tue 9/5/17	Mon 9/18/17	Roux	37																				
39	Screening Level Ecological Risk Assessment (SLERA)	361 days	Mon 5/2/16	Mon 9/18/17	Roux																					
40	Completion of SLERA Field Work	5 days	Mon 5/2/16	Fri 5/6/16	Roux																					
41	X Draft SLERA Summary Report	71 days	Mon 11/21/16	Mon 2/27/17	Roux	34																				
42	EPA review of Draft SLERA Report	30 days	Mon 3/6/17	Fri 4/14/17	EPA	41																				
43	X Response to EPA/MDEQ Comments on Draft SLERA Summary Report	100 days	Mon 4/17/17	Fri 9/1/17	Roux/EPA	42																				
44	X Final Submission of SLERA Report to EPA/MDEQ	10 days	Tue 9/5/17	Mon 9/18/17	Roux	43																				
45	2017 Additional Field Activities	85 days	Mon 4/17/17	Fri 8/11/17	Roux																					
46	Preparation of 2017 field activities plan/SAP Mods	30 days	Mon 4/17/17	Fri 5/26/17	Roux	36																				
47	Pnuematic Slug Testing	15 days	Mon 7/10/17	Fri 7/28/17	Roux	31																				
48	Asbestos Landfill Soil Sampling	10 days	Mon 7/31/17	Fri 8/11/17	Roux/Hydrometrics	47																				
49	Groundwater and Surface Water Sampling Data Summary Report	101 days	Mon 7/10/17	Mon 11/27/17	Roux																					
50	Validation of Round 4 sampling data	25 days	Mon 7/10/17	Fri 8/11/17	Data Validator	31																				
51	X GW/SW Summary Report to EPA/MDEQ	76 days	Mon 8/14/17	Mon 11/27/17	Roux	50																				
52	Baseline Human Health Risk Assessment Work Plan	270 days	Mon 9/18/17	Fri 9/28/18	Roux																					
53	X Draft BHHRA Work Plan to EPA/MDEQ	60 edays	Mon 9/18/17	Fri 11/17/17	Roux/EHS Support	38																				
54	EPA review of Draft BHHRA Work plan	42 days	Mon 11/20/17	Tue 1/16/18	EPA	53																				
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66	EPA review of draft Phase II Sampling and Analysis Plan	25 days	Thu 3/1/18	Wed 4/4/18	EPA	65																				
67	X Response to EPA/MDEQ Comments on Phase II Sampling and Analysis Plan	15 days	Thu 4/5/18	Wed 4/25/18	Roux	66																				
68	X Final Phase II Sampling and Analysis Plan	10 days	Thu 4/26/18	Wed 5/9/18	Roux	67																				
69	South Percolation Pond Expedited Risk Assessment	35 days	Mon 10/30/17	Fri 12/15/17																						
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77	Surface Water Sampling - Round 1	15 days	Mon 6/4/18	Fri 6/22/18	Roux/Hydrometrics																					
78	Groundwater Sampling - Round 1																									